

AMENDMENTS TO THE CLAIMS

Please amend claims 1 and 18, cancel claim 17, and add new claims 45-52, as follows.

1. (Currently Amended) An acoustical system, comprising:
a vehicle having an interior:
a substrate positioned in the interior of the vehicle and having a plurality of conductive paths, the substrate being operatively coupleable to an output device; and
a plurality of acoustical transducers carried by the substrate in the interior of the vehicle and positioned to form an array having at least two dimensions, the acoustical transducers being configured to sense sound and to transmit input signals to the substrate, the substrate being configured to receive the input signals and to transmit at least one output signal to the output device.
2. (Original) The system of claim 1 wherein the substrate includes a circuit board.
3. (Original) The system of claim 1 wherein the acoustical transducers include microphones.
4. (Original) The system of claim 1 wherein the output device includes a recorder.
5. (Original) The system of claim 1 wherein the output device includes a computer processor.

6. (Original) The system of claim 1 wherein the substrate is configured to transmit an output signal that is at least approximately the same as at least one of the input signals.

7. (Original) The system of claim 1 wherein the substrate is generally self-supporting.

8. (Original) The system of claim 1 wherein the plurality of acoustical transducers includes at least one acoustical transducer configured to sense sound and at least one acoustical transducer configured to transmit sound.

9. (Original) The system of claim 1 wherein at least one of the plurality of acoustical transducers carried by the substrate is further configured to transmit sound.

10. (Original) The system of claim 1 wherein the substrate includes a connector coupled to at least one of the conductive paths and wherein at least one of the acoustical transducers is coupled to the connector.

11. (Original) The system of claim 1 wherein the substrate includes a first substrate, and wherein the system further comprises at least one second substrate, with the first substrate being operatively coupleable to the output device via the at least one second substrate.

12. (Original) The system of claim 1 wherein the substrate is operatively coupleable to the output device via at least one cable.

13. (Original) The system of claim 1 wherein the substrate further includes a processing device coupled to at least one of the conductive paths and at least one of the

acoustical transducers to process an input signal from the at least one acoustical transducer.

14. (Original) The system of claim 1 wherein the substrate further includes a processing device coupled to at least one of the conductive paths and at least one of the acoustical transducers to digitize an input signal from the at least one acoustical transducer.

15. (Original) The system of claim 1 wherein the substrate includes at least one of a resistor and a capacitor.

16. (Original) The system of claim 1 wherein the plurality of conductive paths includes at least one first conductive path and at least one second conductive path, the at least one first conductive path being configured to carry at least one of the input and output signals, and the at least one second conductive path being coupled to ground and located proximate to the at least one first conductive path to shield the first conductive path.

17. (Canceled)

18. (Currently Amended) The system of claim 1, ~~further comprising a vehicle having an interior, the substrate and the acoustical transducers being positioned in the interior, and~~ wherein the acoustical transducers are positioned to sense noise produced by at least one of the vehicle and an environment surrounding the vehicle.

19. (Previously Presented) An acoustical system, comprising:
a first substrate having a plurality of conductive paths, the first substrate being operatively coupleable to an output device;
at least one first acoustical transducer carried by the first substrate, the at least one first acoustical transducer being configured to sense sound and to transmit a

first input signal to the first substrate, the first substrate being configured to receive the first input signal and to transmit a first output signal to the output device;

at least one second substrate having a plurality of conductive paths, the second substrate being operatively coupleable to the output device or another output device; and

at least one second acoustical transducer carried by the at least one second substrate, the at least one second acoustical transducer being configured to sense sound and to transmit a second input signal to the at least one second substrate, the at least one second substrate being configured to transmit a second output signal to the output device or the other output device, and the first and second substrates being coupled together to position the first and second acoustical transducers in an array having at least two dimensions.

20. (Original) The system of claim 19 wherein the first and second substrates are releasably coupled together.

21. (Original) The system of claim 19 wherein at least one of the first and second substrates is operatively coupleable to the output device via at least one cable.

22. (Previously Presented) An acoustical system, comprising:

a first substrate having a plurality of conductive paths, the first substrate being operatively coupleable to an output device;

at least one first acoustical transducer carried by the first substrate, the at least one first acoustical transducer being configured to sense sound and to transmit a first input signal to the first substrate, the first substrate being configured to receive the first input signal and to transmit a first output signal to the output device;

- at least one second substrate having a plurality of conductive paths, the second substrate being operatively coupleable to the output device or another output device; and
- at least one second acoustical transducer carried by the at least one second substrate, the at least one second acoustical transducer being configured to sense sound and to transmit a second input signal to the at least one second substrate, the at least one second substrate being configured to transmit a second output signal to the output device or the other output device, and the first and second substrates being coupled together to position the first and second acoustical transducers in a spherical array.

23. (Previously Presented) An acoustical system, comprising:

- a first substrate having a plurality of conductive paths, the first substrate being operatively coupleable to an output device;
- at least one first acoustical transducer carried by the first substrate, the at least one first acoustical transducer being configured to sense sound and to transmit a first input signal to the first substrate, the first substrate being configured to receive the first input signal and to transmit a first output signal to the output device;
- at least one second substrate having a plurality of conductive paths, the second substrate being operatively coupleable to the output device or another output device; and
- at least one second acoustical transducer carried by the at least one second substrate, the at least one second acoustical transducer being configured to sense sound and to transmit a second input signal to the at least one second substrate, the at least one second substrate being configured to transmit a second output signal to the output device or the other output device, and the first and second substrates being coupled together to position the first and second acoustical transducers in a two dimensional rectilinear array.

24. (Original) The system of claim 19 wherein the first and second substrates are positionable relative to each other in a first configuration that conforms to a first volume of space and positionable relative to each other in a second configuration that conforms to a second volume of space different than the first volume of space.

25. (Original) The system of claim 19, further comprising a vehicle having an interior, the first and second substrates and the first and second acoustical transducers being positioned in the interior.

26. (Withdrawn-Previously Presented) An acoustical system, comprising:
a circuit board having a plurality of conductive paths, the circuit board being operatively coupleable to an output device; and
a plurality of microphones carried by the circuit board and positioned to form an array having at least two dimensions, the microphones being configured to sense sound and to transmit input signals to the circuit board, the circuit board being configured to receive the input signals and to transmit at least one output signal to the output device.

27. (Withdrawn-Previously Presented) The system of claim 26 wherein the microphones include first microphones configured to transmit first input signals and the circuit board includes a first circuit board configured to transmit a first output signal, and wherein the system further comprises:

a second circuit board having a plurality of conductive paths, the second circuit board being coupled to the first circuit board and operatively coupleable to the output device or another output device; and
at least one second microphone carried by the second circuit board, the at least one second microphone being configured to sense sound and to transmit a second input signal to the second circuit board, the at least one second circuit board being configured to receive the second input signal and to

transmit a second output signal to the output device or the other output device.

28. (Withdrawn-Previously Presented) The system of claim 26 wherein the microphones include first microphones configured to transmit first input signals and the circuit board includes a first circuit board configured to transmit a first output signal, and wherein the system further comprises:

a second circuit board having a plurality of conductive paths, the second circuit board being coupled to the first circuit board and operatively coupleable to the output device or another output device, the first and second substrates being positioned relative to each other in a first configuration that conforms to a first volume of space and positionable relative to each other in a second configuration that conforms to a second volume of space different than the first volume of space; and

at least one second microphone carried by the second circuit board, the at least one second microphone being configured to sense sound and to transmit a second input signal to the second circuit board, the at least one second circuit board being configured to receive the second input signal and to transmit a second output signal to the output device or the other output device.

29. (Withdrawn) The system of claim 26, further comprising a vehicle having an interior, the circuit board and the microphones being positioned in the interior.

30-44. (Canceled)

45. (New) An acoustical system, comprising:

a substrate having a plurality of conductive paths, the substrate being operatively coupleable to an output device; and

a plurality of acoustical transducers, including microphones, carried by the substrate and positioned to form an array having at least two dimensions, the acoustical transducers being configured to sense sound and to transmit input signals to the substrate, the substrate being configured to receive the input signals and to transmit at least one output signal to the output device.

46. (New) An acoustical system, comprising:

a substrate having a plurality of conductive paths, the substrate being operatively coupleable to an output device that includes a recorder; and

a plurality of acoustical transducers carried by the substrate and positioned to form an array having at least two dimensions, the acoustical transducers being configured to sense sound and to transmit input signals to the substrate, the substrate being configured to receive the input signals and to transmit at least one output signal to the output device.

47. (New) An acoustical system, comprising:

a substrate having a plurality of conductive paths, the substrate being operatively coupleable to an output device; and

a plurality of acoustical transducers carried by the substrate and positioned to form an array having at least two dimensions, the acoustical transducers being configured to sense sound and to transmit input signals to the substrate, wherein at least one acoustical transducer is configured to sense sound and at least one acoustical transducer is configured to transmit sound, the substrate being configured to receive the input signals and to transmit at least one output signal to the output device.

48. (New) An acoustical system, comprising:

a substrate having a plurality of conductive paths, the substrate being operatively coupleable to an output device; and

a plurality of acoustical transducers carried by the substrate and positioned to form an array having at least two dimensions, the acoustical transducers being configured to sense sound and to transmit input signals to the substrate, wherein at least one of the acoustical transducers is further configured to transmit sound, the substrate being configured to receive the input signals and to transmit at least one output signal to the output device.

49. (New) An acoustical system, comprising:

a substrate having a plurality of conductive paths, the substrate being operatively coupleable to an output device; and

a plurality of acoustical transducers carried by the substrate and positioned to form an array having at least two dimensions, the acoustical transducers being configured to sense sound and to transmit input signals to the substrate, the substrate being configured to receive the input signals and to transmit at least one output signal to the output device, wherein the substrate includes a first substrate, and wherein the system further comprises at least one second substrate, with the first substrate being operatively coupleable to the output device via the at least one second substrate.

50. (New) An acoustical system, comprising:

a substrate having a plurality of conductive paths, the substrate being operatively coupleable to an output device; and

a plurality of acoustical transducers carried by the substrate and positioned to form an array having at least two dimensions, the acoustical transducers being configured to sense sound and to transmit input signals to the substrate, the substrate being configured to receive the input signals and to transmit at least one output signal to the output device, wherein the substrate further includes a processing device coupled to at least one of the conductive paths

and at least one of the acoustical transducers to digitize an input signal from the at least one acoustical transducer.

51. (New) An acoustical system, comprising:

- a substrate having a plurality of conductive paths and including at least one of a resistor and a capacitor, the substrate being operatively coupleable to an output device; and
- a plurality of acoustical transducers carried by the substrate and positioned to form an array having at least two dimensions, the acoustical transducers being configured to sense sound and to transmit input signals to the substrate, the substrate being configured to receive the input signals and to transmit at least one output signal to the output device.

52. (New) An acoustical system, comprising:

- a substrate having a plurality of conductive paths, the substrate being operatively coupleable to an output device; and
- a plurality of acoustical transducers carried by the substrate and positioned to form an array having at least two dimensions, the acoustical transducers being configured to sense sound and to transmit input signals to the substrate, the substrate being configured to receive the input signals and to transmit at least one output signal to the output device, wherein the plurality of conductive paths includes at least one first conductive path and at least one second conductive path, the at least one first conductive path being configured to carry at least one of the input and output signals, and the at least one second conductive path being coupled to ground and located proximate to the at least one first conductive path to shield the first conductive path.